

Brainerd, MN 2020 MS4 General Permit

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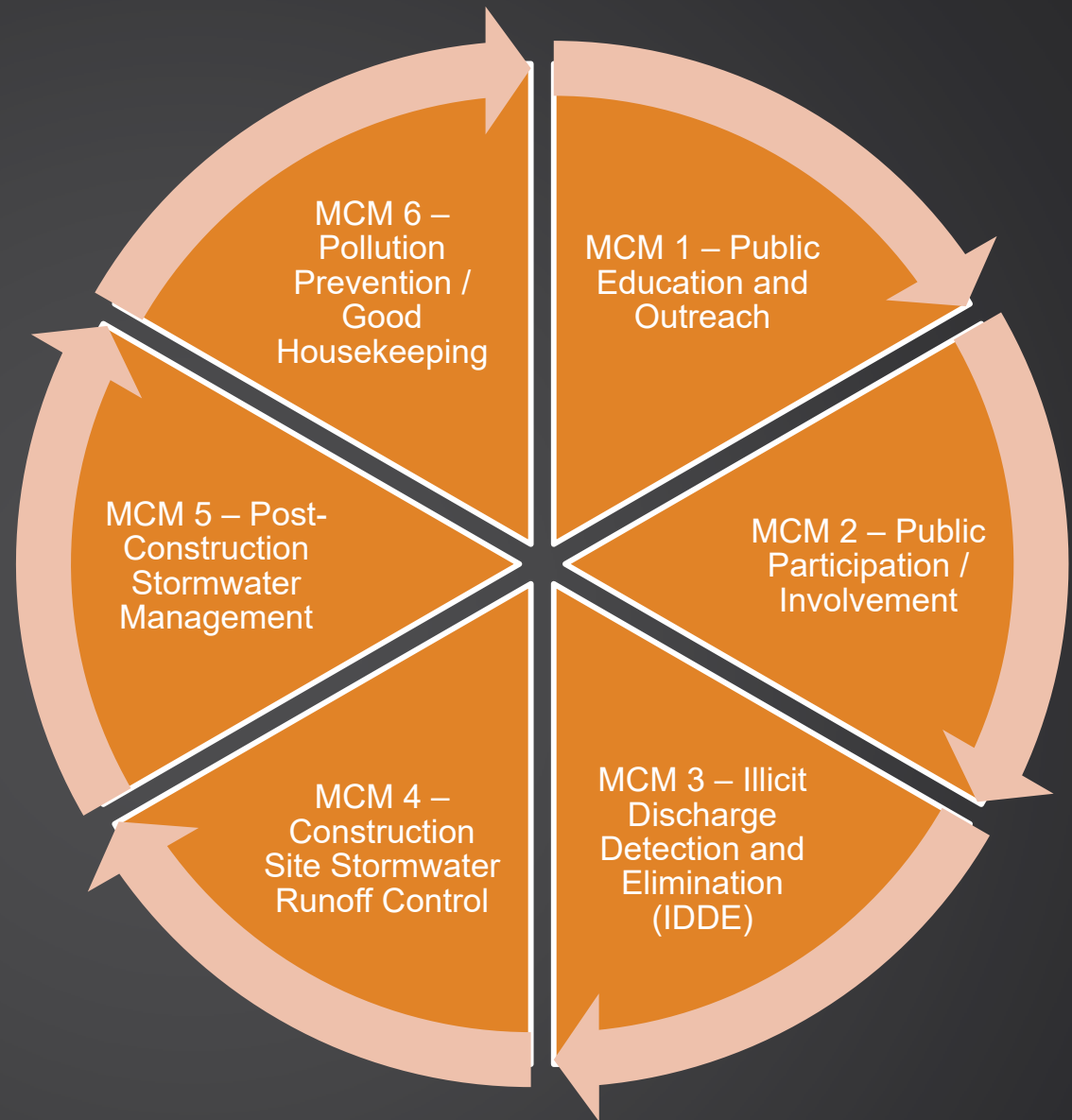
2020 MS4 General Permit

- Municipal Separate Storm Sewer System (MS4)
- Minnesota Pollution Control Agency (MPCA)
- 5-year permit cycle
- Designed to manage stormwater

2020 MS4 General Permit

- City Code
- Enforcement Response Procedures (ERP)
- Discharges to Impaired Waters
- Minimum Control Measures (MCM)

2020 MS4 General Permit



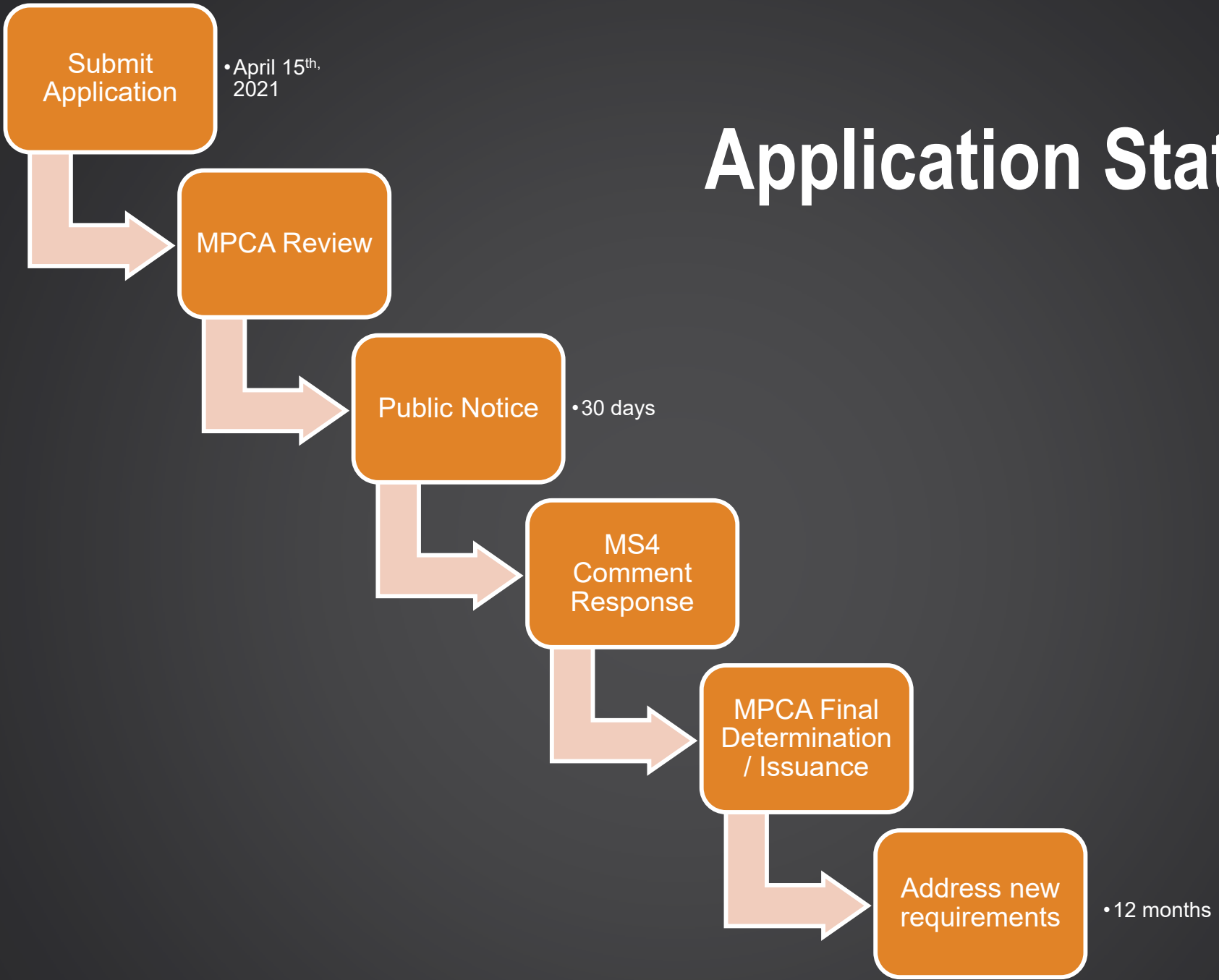
2020 MS4 General Permit

- Regulatory mechanisms and enforcement procedures
- Checklists and recordkeeping
- Best Management Practices
- Inventories and mapping
- Staff training

Application Status

- HRG contracted to assist City with 2020 application
 - Self-audit of SWPPP
 - Address outstanding needs from old permit
 - Complete application
 - Define path to completion for new permit req's
 - Define path forward for tools to increase efficiency
 - Estimate level of administrative effort

Application Status



New Permit Requirements

- Public education, outreach and involvement needs
- Salt management and pet waste
- Documentation
- Staff training for MCMs 3-6
- IDDE targeting / prioritization and procedures
- ERP updates
- Site plan and inspection checklist content
- Regulatory requirements (City Code)
- Off-site treatment projects not owned by City
- Operation and maintenance documentation
- Estimation of TSS, TP load reductions for WLA's
- Bacteria, chloride and temperature BMP descriptions for WLA's

SWPPP Workplan

SWPPP Component	Deadline
Enforcement Response Procedures	12 months from date of coverage
Total Maximum Daily Load - Waste Load Allocation	Over next 5-years
MCM 1 – Public education and Outreach	
MCM Plan/SOP	15-Apr-21
Update Education Materials	12 months from date of coverage
Annual Stormwater E/O on at least 2 high-priority issues	12 months from date of coverage
Annual IDDE E/O	12 months from date of coverage
Annual salt use/management E/O	12 months from date of coverage
Annual pet waste E/O	12 months from date of coverage
Documentation	At each event/effort

SWPPP Workplan

MCM 2 – Public Participation/Involvement	
MCM Plan/SOP	15-Apr-21
Annual SWPPP Public Input/Involvement	12 months from date of coverage
Annual Stormwater Public Involvement Activity	12 months from date of coverage
Documentation	At each event/effort
MCM 3 – Illicit Discharge Detection and Elimination (IDDE)	
MCM Plan/SOP	15-Apr-21
Regulatory Mechanism Update	12 months from date of coverage
Checklists Update	15-Apr-21
IDDE Inspections	On-going
Spill Kits	15-Apr-21
Staff Training	12 months from date of coverage for new staff, once per 3-years for previously trained staff
Documentation	At each event/activity

SWPPP Workplan

MCM 4 – Construction Site Stormwater Runoff Control	
MCM Plan/SOP	15-Apr-21
Regulatory Mechanism Update	12 months from date of coverage
Checklists Update	15-Apr-21
Enforcement Response Procedures	12 months from date of coverage
Training	12 months from date of coverage for new staff, once per 3-years for previously trained staff
Documentation	At each event/activity

SWPPP Workplan

MCM 5 – Post-Construction Stormwater Management	
MCM Plan/SOP	15-Apr-21
Regulatory Mechanism Update	12 months from date of coverage
Inventory Update	12 months from date of coverage
Checklists Update	First flush by April 15, 2021, then revision within 12 months from date of coverage
Training	12 months from date of coverage for new staff, once per 3-years for previously trained staff
Documentation	At each event/activity

SWPPP Workplan

MCM 6 – Pollution Prevention/Good Housekeeping for Municipal Operations	
MCM Plan/SOP	15-Apr-21
Inventory Update	On-going
Checklists Update	15-Apr-21
Inspections	Once per calendar year unless deemed necessary to change frequency
	All locations inspected within 5 years
Training	12 months from date of coverage
Documentation	At each event/activity

MS4 Program Staff Time

ITEM	2020 HOURS	ESTIMATED ANNUAL HOURS
MCM 1 EDUCATION AND OUTREACH	56	80
MCM2 PUBLIC PARTICIPATION/INVOLVEMENT	16	16
MCM3 ILLICIT DISCHARGE DETECTION AND ELIMINATION	120	400
MCM4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL	236	500
MCM5 POST-CONSTRUCTION STORMWATER MANAGEMENT	60	250
MCM 6 POLLUTION PREVENTION/MUNICIPAL GOOD HOUSEKEEPING	0	150
ANNUAL REPORTING	16	40
TMDL-WLA	0	100
TOTAL HOURS	504	1536

Contact Information



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CITY COUNCIL STORMWATER INFORMATIONAL SESSION



MAY 17, 2021

MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM) MS4 PERMIT



- Issued Every 5 years by MPCA (Minnesota Pollution Control Agency) to City's/Townships with over 5,000 population.
- Permit regulates the discharge of stormwater into waters of the state.
- Requires that the permittee implement a SWPPP (stormwater pollution prevention plan).
- Requires that the permittee implement minimum control measures and standard operating procedures to reduce stormwater pollutants entering the MS4.

MAY 17, 2021



STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- **City developed a SWPPP to address six minimum control measures set by MPCA**
 - Public Education & Outreach
 - Public Participation & Involvement
 - Illicit Discharge Detection & Elimination
 - Construction Site Runoff Controls
 - Post-Construction Storm Water Management
 - Pollution Prevention/Good Housekeeping
- **Goal of the SWPPP is to create Best Management Practices (BMP's) which will reduce or eliminate sediment and other pollutants from our lakes, rivers, and wetlands**

May 17, 2021



STORM SEWER SYSTEM OVERVIEW

- **Total Pipe in System**
 - 301,300 LF (57 Miles) – Ranging in Size from 8” to 60”
 - Most is Reinforced Concrete Pipe
- **Structures**
 - 2,528 Catch Basin Structures
 - 578 Storm Manholes
- **Outfalls**
 - 84 Storm Sewer Outfalls (generally to Mississippi River, Little Buffalo Creek, or lowlands)
- **Other Stormwater Structures**
 - 43 Wet Detention Ponds - Used for treatment of stormwater before discharge
 - 32 Private Infiltration or Detention Ponds - Required per Section 725 City Code
 - 22 Rain Gardens – Used for sediment/phosphorus removal from run-off



STORM SEWER FUND

- Upgrades to City of Brainerd storm sewer system are made through the Storm Sewer Fund
- Residential Properties are all charged 1 REU (Residential Equivalency Unit)
- 1 Residential Equivalency Unit (REU)= \$4.00 (2020)
- Commercial/Industrial Properties Fees are based on 1 REU per 1/12 Acre of Impervious surface, or 12 REU's per Acre.
- Total Current REU's: 4,171 Residential
8,112 Commercial/Industrial



MS4 ACCOMPLISHMENTS THAT HAVE BEEN COMPLETED IN THE LAST YEAR

- **Inspected 17 outfalls** – Required to inspect 20% of total/year
- **Inspected 9 ponds** – Required to inspect 20% of total/year
- **Inspected 11 Stockpiles** – Required to inspect 4 times/year
 - 4x each
- **Inspected 22 Rain Gardens** – Required to inspect 4 times/year
 - 4x each
- **Performed Maintenance as needed**

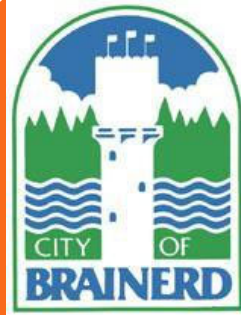


MS4 ACCOMPLISHMENTS THAT HAVE BEEN COMPLETED IN THE LAST YEAR

- Conducted 83 formal erosion and sediment control site inspections on construction sites (done as part of building permit inspections)
- Cleaned 65,510 LF of sanitary sewer
- Swept 1,200 CY of material from streets (Spring/Fall)



QUESTIONS OR COMMENTS?



May 17, 2021